

WIGHT DROP IN PRICE OF COPPER FELT

Will Probably Delay Still Further Return To Normal Conditions—Interest In Shattuck Meeting.

The product of ore by the two leasing companies in the Warren district since the first of February has amounted to nearly 4,000 tons daily. This estimate is arrived at from the number of ore cars which have been loaded and forwarded to Douglas. One regular ore train daily carries fifty of the big steel ore cars and besides from eight to ten small cars which carry the samples for the Copper Queen smelter. Besides this regular ore train the local freight train which goes daily from Benson to Douglas takes an average of thirty loads of ores from Don Luis to Douglas.

The Calumet & Arizona company is producing more ores from its mines and those owned by the Superior & Pittsburgh than at any time in the past. This company is employing the largest force in its history and the smelter is producing more copper than ever before, having five furnaces in operation whereas only four of the five furnaces had been operated at one time prior to the middle of January, when the fifth one was put in commission.

The Copper Queen company is not making the output that it was one year ago, but it is doing more development work now than at any time in its history. A great deal of work is being done in preparation for the new system of bringing the Queen ores to the surface through the Sacramento shaft which has now reached a depth of 1200 feet. This shaft has four compartments, and will have a capacity for hoisting 3,000 tons during two eight-hour shifts. It is the intention to use skips instead of cars for hoisting ores which will be carried automatically into the bins from which it will be taken into the ore cars of the railroad. Electric locomotives will be used to bring the ores from the various slopes of the Queen properties. These underground ore trains will be unloaded into bins automatically and from the bins the ore will be discharged into the large skips for hoisting to the surface. Arriving at the surface the skips will automatically discharge the ore onto a belt which will distribute the ore into a string of ten cars. This will give an even distribution of the entire product from every producing locality of the mines. One of the ten cars will be a sample car which will go directly to the ore pits ready for the furnace. The work of grading for a railroad track to the Sacramento shaft has been in progress during the past two months and is expected to be completed in within thirty days. It is expected that the Sacramento shaft will be in complete operation in about four months. The operation of the skip system of hoisting ores to be installed at the Sacramento will be the first attempt at this system in the Warren district and it is expected to result in a more economical and satisfactory method of bringing the ores from the mines and loading them on the cars.

During the week the regular monthly payments were made to the men employed in the district and it can be said that the money put in circulation was considerably in excess of the amount for the preceding three months. A great deal of interest was aroused during the week in the annual stockholders' meetings of the Shattuck-Arizona and Don-Arizona companies at Duluth yesterday afternoon, a complete story of the proceedings of which is printed on another page of the Review this morning. The topic which absorbed most of the interest regarded the construction of the smelter at Douglas to handle the ores of the two companies.

Among the smaller companies development work is being pushed forward steadily, in many instances most favorable showings being obtained. In spite of the continued slump in the price of copper the general situation is satisfactory, but there is little likelihood of the companies making any effort for a record production for some time to come.

Queen Power House.
The new power house being installed by the Copper Queen is making excellent headway. The boilers are now in place and will be steamed up next week, though it will be some time before all the connections have been made. The total capacity of the electric turbines and air compressors to be installed in the new power house, which is near the new Sacramento shaft, will be 4,000 horsepower, consisting of electric and compressed air. The electricity will furnish the power for hauling all the underground haulage, for driving the pumps, running the dinky hoists, for lighting and for running the various shop machinery including the saw mills. The drills will be operated by compressed air which will also be used for the operation of the large first motion hoists. The machinery is being placed in the new power house under the personal direction of Mr. Legrand, of the mechanical engineering department.

WAGES CUT AT NACAZARI.
Yesterday notices were posted at Nacozari advising a reduction in wages of those in the employ of the Metcama Copper company. Whether this reduction will reach the

PINAL COUNTY RICH IN GOLD AND SILVER

Before Silver Money Was De-throned Silver-King and Vekol Yielded Millions to Owners—Other Properties.

Florence Blade.
The temporary lull in the demand for copper claims should result in directing attention to the gold resources of Pinal county. When silver was in demand Pinal county came to the front with the greatest silver mines known on the Pacific coast, outside of the famous Comstock, namely, the Silver King and Vekol. In the phenomenal richness of their silver ore, these two mines surpassed even the Comstock lode. When silver became de-throned, through the trickery of John Sherman of Ohio, and Cooper, of Indiana, copper mines came to the front and the prospectors of Pinal county were exceedingly rich in that metal. Now our prospectors are turning their attention to gold and there is little doubt among those acquainted with the great diversity of the mineral resources of Pinal, that they will unearth here some of the greatest gold mines of the west. We have already had developed here the Mammoth mine on the San Pedro which has produced millions in gold and the Mammoth mine 31 miles west of Florence, once which has also produced its millions of dollars in gold. Also in Southern Pinal county, six miles from Oracle, which have produced over one million dollars in gold. None of these mines have been worked in truth. It may be said, are still in their infancy, but through the vicissitudes of accidents or mismanagement have been temporarily closed down. Besides these more or less undeveloped mines, there is the Mohawk at Mohawk, undergoing development, the Riggins, Coleman gold property at Troy, the Superior, at Superior, which has a gold vein as marvelous in gold values as other portions of the mine is in copper, to say nothing of hundreds of other gold prospects in other parts of the county that need only developing to make them great producers of the yellow metal. The gold resources of the county are hardly scratched, to use a common phrase. Now, that attention is being directed particularly to this metal, Pinal can be depended upon to take a front position in the rank of gold producers.

or this reduction will reach the employees in every department is not known, but it will include the miners and all those who were included in the raise of the wage scale during the latter part of 1906. The average amount of the wage cut will be 10 per cent. This will put the wages at Nacozari back to the old scale prior to the advance in the fall of 1906. The new wage scale is to become effective on March 1. All the employees who are not willing to accept the lower wages have been requested to give the company as much notice as possible before the time for the change in wages. J. S. Douglas, the general manager at Nacozari, announced when in Douglas the early part of the week that he greatly regretted the necessity of reducing wages, but that it was possible for him to avoid this step. All the mining companies in Arizona reduced their wage scale last fall when the price of copper dropped below fifteen cents, but Mr. Douglas has been deferring a like action in the hope that the price of copper would recover so that he could continue the wages paid at Nacozari during the last fifteen months.

Work at Nacozari is being pushed on the new concentrator and those in charge are confident that it will be possible to start the mill by the first of April and perhaps a few days earlier than that. There has been a large force of mechanics employed on this mill during the past six months whose services will be dispensed with on its completion.

AT CANANEA.
Parties arriving from Cananea this week bring no news of special interest from the big Sonora camp. The Greene-Canaanee continues development work in the mines and the work of remodeling and overhauling the smelter is making good progress. While the people of Cananea are hoping for an early resumption of maximum operation in that district, still the recent lowering of the price of copper is not calculated to hasten that event, as the reports from the east show a better price for copper before resuming production.

BELOW DOUGLAS.
In the early days of Douglas the Walker property had fair to assume important proportions to the realm of mining near Douglas. At that time, one McVey also developed mineral of consequence and did some shipping from the same locality. This is about ten miles east of the Smelter City on the American side of the international boundary. Both propositions subsequently fell out of sight and have lain comparatively idle ever since. A few years ago other parties located mining lands in the same locality and brought respectable prospects to light but the prospects were evidently too close in to attract much attention, the general tendency being to seek

(Continued on Page Ten.)

WALKER GIVES INFORMATION OF CANANEA BUNCH

Financial Status of Various Companies Which Are and Have Been Prominent In Big Sonora Camp.

Copper is in better demand, and the situation is gradually improving. Lake and electrolytic are quoted all the way from 13.75 to 14 cents, and sales have been made at these prices recently.

Metal sold for delivery in April and May commands 1.5 to 1.6 cent more than cash copper. Consumers see an increasing volume of business without corresponding growth of copper production, and they expect prices to be higher before the big smelters which are now wholly or partially closed down are again sending copper to market.

The brass business is looking up somewhat, and Connecticut Valley manufacturers have been considerable buyers. Some of the brass manufacturers who in October and November reduced their working forces and ran their factories only three days per week are now running full time again. There has been a perceptible increase in the sheet copper business, also, as is shown by a larger demand on the smelters and refineries for cake, the form in which copper is cast preparatory for rolling. The demand for wire bars, though slightly better than it was, is still very small.

I hear of a number of copper producers who have sold their surplus copper, and also considerable quantities of delivery two and three months ahead. There are still some lots of a few million pounds each which have not been disposed of, but this copper is being held for higher prices.

The situation as a whole is improved, and the prospect is good that all the smelters will be running again within a few months and selling their entire output of copper at 14 to 15 cents per pound. Between now and that time, however, the price may advance above 16 cents temporarily.

Greene-Canaanee's financial condition is being widely discussed and some remarkable tales are told of the consolidation, the condition of the property, the reason for the discontinuance of operations and the cost of producing copper. Having given this subject considerable investigation I am able to state, with approximate accuracy, the real situation.

When the management of the Greene Consolidated company was surrendered to the interests who now control it the company's debts aggregated about \$1,350,000. On the other hand, it had loaned \$1,000,000 to the Sierra Madre Land & Lumber Co., and it held in its treasury 200,000 shares of the stock of the Cananea Central Copper company which it had received in payment for a block of undeveloped land sold to the company named. The new management collected the \$1,000,000 loan from the Sierra Madre Land & Lumber Co., and it is generally known, the 200,000 shares of Cananea Central stock were sold to Cole-Ryan interests for \$20 per share, or \$4,000,000 cash. This gave the Greene Consolidated company \$5,000,000 in cash.

The Cole-Ryan interests caused an examination of the Sierra Madre Land & Lumber Co.'s properties to be made and decided that it would not be wise for the Greene-Canaanee company to supply the money necessary to develop the lumber business. They therefore accepted a proposition from Colonel Greene to sell the 51 per cent stock interest in the Sierra Madre company, held by the Greene Consolidated company, for \$2,000,000. As a part of this arrangement, a timber contract held by the Greene Consolidated company was cancelled.

Payment for the 51 per cent interest in the Sierra Madre company was made in notes which were, and still are, secured by a deposit of 75 per cent of the capital stock of the Sierra Madre company. It seems, also, that the Greene Consolidated company had endorsed \$450,000 of the notes of the Sierra Madre company. The first portion of these notes, \$150,000, was paid by the latter company; the second was defaulted and paid by the Greene Consolidated. The third installment of \$150,000 falls due a few months hence, and on account of the financial stringency, the stock market disturbance, etc., it is not probable that the work of financing the Sierra Madre company has been carried forward sufficiently far to enable it to make this payment.

The history of the \$5,000,000 cash which the Greene Consolidated had when its management changed is as follows: A dividend of 40 cents per share, \$400,000, was paid, reducing the amount to \$4,600,000; the notes of \$150,000, referred to, reduced it again to \$4,450,000; the company's debts, amounting to \$1,350,000, were liquidated and this further reduced the cash on hand to \$3,100,000. The company's smelting plant and concentrator were thoroughly overhauled and put in first class condition, the object of this being to enable the company to operate and earn money whenever metal-market conditions warranted, pending the time that a new smelter and additional concentrators should be constructed. The cost of these repairs was about \$500,000, and this reduced the company's cash on hand to about \$2,600,000. At the time the Greene-Canaanee company was formed, Greene Consolidated was carrying about \$1,000,000 worth of supplies. It was found

necessary to increase the supplies, merchandise in store, etc., to \$2,500,000. To accomplish this \$1,500,000 was used, thus reducing the company's cash surplus to \$1,100,000.

During the last year of its operations, ending last July, the company produced something more than 40,000,000 pounds of copper at a cost, including all construction and other expenses, of 18 cents per pound. These figures of cost are said to have been endorsed recently by the present management of the Greene Consolidated copper company, although it is declared that expert accountants who examined the books of the company last August endorsed the cost sheet of the former management, which was about 13 cents per pound.

About one-half of the 40,000,000 pounds of copper was sold at an average of 21 cents, and the remainder was carried down in the slump and the greater portion of it sold at approximately 13 to 14 cents, although the company still retains a few million pounds which undoubtedly will be sold higher than present prices. It is figured the company lost about \$500,000 on the shrinkage in the value of its copper, thus further reducing its cash surplus to about \$700,000.

The quick assets of the Greene Consolidated may be summarized at present as follows: Cananea Central, unsold copper, \$1,400,000; supplies, merchandise, etc., \$2,500,000; notes of the Sierra Madre Land & Lumber Co., \$2,150,000, making a total of \$6,050,000.

Through its ownership of the Greene Consolidated company these assets may properly be figured as belonging to the Greene-Canaanee company. In addition to this there is the treasury of the Cananea Central company between \$500,000 and \$2,000,000 in cash and treasury stock, which makes a total of at least \$7,500,000, or about \$5,500,000, with the notes of the Sierra Madre Land & Lumber Co. included.

At the time the operations were discontinued the cost of making copper had been reduced to 13.35 cents per pound not including and 14.56 including construction. This result was obtained on the treatment of ore which yielded an average of 2.375 per cent, or about 48 pounds of copper to the ton. Excluding construction, the gross operating cost per ton must have been about \$2.40. There is reason to believe that this can be reduced another dollar per ton with the reconstructed smelting equipment, and through the reorganization of the working forces which is made possible by the long period of idleness.

This will result in a net production of 11 cents per pound of copper, even though the average ore yields no better than 2.38 per cent copper.

Since the smelter and concentrator were closed extensive development work has been done in both the Greene Consolidated and Cananea Central properties. A very considerable tonnage of high grade ore has been opened up and made ready for mining. In the Cananea Central mine of the Cananea Central there is an ore body approximately 1,000 feet long and already developed from 20 to 150 feet wide, with its entire width yet to be determined, which runs from 5 per cent to 9 per cent copper and carries 5 to 9 ounces of silver per ton, and some gold. There is also a large tonnage of 2 per cent to 3 per cent, concentrating ore, carrying good silver values.

When the concentrator and smelter resume the mixture of ores from the several mines is expected to yield an average of 3.12 per cent copper, or approximately 70 pounds per ton. From ore of this average grade copper can be made at a cost of 10 to 11 cents per pound. The capacity of the reduction plant will of course be greater, because of the higher grade ore, and the company should make 60,000,000 to 70,000,000 pounds of copper annually, resulting in profits of about \$1 per share on Greene-Canaanee's 2,500,000 shares on a 14 to 15-cent copper market. As the company has higher grade ore developed and treated increases, earnings will grow, and it is not improbable that net profits of \$2 per share on a 15-cent copper market will a little later on be found possible.

The good thing about the Greene-Canaanee enterprise is the fact that its ore deposits are of tremendous size. After systematization has been brought about, it is probable that another smelter and additional concentrators will be erected which will increase the company's productive capacity 100,000,000, and perhaps to 200,000,000 pounds annually. There is a big future before the company, therefore, and it is quite certain that the working out of the enterprise will cause the stock to be worth more in a few years hence than the highest price at which it has ever sold.

THE VIRGINIA.
This locality, really a part of the Santa Rosa district, was formerly known as the Centia. It has been turned over on a lease and bond to Frank Wright and associates, who are taking out good copper ore, which will bear shipping with copper at 14 cents. The property is developed by a hundred-foot shaft and about sixty feet of drifting, and is improving with development.

THE TORDILLOS.
Nothing has come of the long drawn negotiations, first between the La Union people and L. C. Shattuck, later of the consolidation of the Union group with Duluth parties in the lead, though we are promised great activity this spring under the guidance, inspiration and capital of the big northern company. The Brooks people, Boston and Brown, George Dunn and others in the Aloja all propose to go to work in the spring. So far as developed this district has been distinguished by the perpetual chain of delays, postponements and suspensions have operated to remove the district from the realm of public interest until such time as actual, active, systematic development work shall have been undertaken.

DIVIDENDS ON COPPER ARE IMMENSE

Several Properties Have More Than Paid Back Entire Capitalization To Stockholders—Some Notable Records.

(Iron Ore.)
Never since the inception of the mining and metallurgical industries on the American continent have the dividends paid by corporate enterprises to their shareholders been so large as they were for the year 1907. Greater still would these dividends have been had the market prices of silver, copper, zinc and lead and their allied products continued at the high level which ruled in the first half of 1907. With the depression in business generally, notably in October, November and December, the mines and works which had been producing at their full capacity were either cut from 25 to 50 per cent or were discontinued until financial conditions show an improvement.

A careful canvass by the Mining World shows that during the year 1907 no less than 157 metal mines and works in the United States, Canada, Mexico and Central and South America paid dividends aggregating the large total of \$97,521,705. Add to this sum the dividends declared previously, and we have a grand total since incorporation of no less than \$605,143,992. On the total issued capitalization of \$715,528,732 the dividends paid to the end of 1907 show a return of about 83 per cent.

Large Sums Paid.
In addition to the above dividends there was paid in 1907 by eight securities holding corporations the large sum of \$17,059,772, making a total to date \$77,031,091, which is equivalent to a return of nearly 30 per cent on the outstanding capitalization of \$260,426,000. These securities holding corporations have been in existence not more than nine years.

Another branch of the industry which earns substantial profits is that of marketing the metals on a commission. Undoubtedly the most prosperous metal-selling agency is the United, which markets the products of the Amalgamated Copper company and other large concerns.

In 1907 the United Metals Selling company declared dividends of \$2,125,000, and since organization (in January, 1900), has paid a total of \$5,625,000, showing a return of 112.12 per cent on its capitalization of \$5,000,000. Very few people own the shares of the United Metals Selling company.

Hold the Lead.
By subdividing the dividends paid by the 157 mines and metallurgical works, we learn that the copper properties hold the lead. During 1907 no less than 33 copper mines, principally in the United States, declared dividends of \$20,226,145, declared dividends of \$1,959,845. Since incorporation these copper mines have distributed among their shareholders the handsome sum of \$343,487,389, including that they have repaid more than one and one-half times their outstanding share capital. No wonder the dividend-paying copper stocks sell at a big premium as a rule, and this also explains why Calumet & Hecla and like meritorious shares are seldom sold and are held as an investment by the families of the original buyers. The Calumet & Hecla mine, capitalized at only \$2,500,000 in 1905, (which some of the age sold as high as \$1,000 each), declared dividends in 1907 amounting to \$5,500,000 or 220 per cent on the capitalization. Since organization (in 1907) Calumet & Hecla has yielded dividends to the enormous total of \$105,850,000, or 4,234 per cent on \$2,500,000 capital, a remarkable record for a mine which produces ore containing about 2.14 per cent. (45 lbs.) of copper per ton milled.

The Largest Dividend.
The copper mine that paid the largest dividend in 1907 is Anaconda of Montana, which is controlled by the Amalgamated Co. It was \$7,800,000 or 26 per cent on the capitalization of \$30,000,000. Since its organization in 1895, Anaconda has paid dividends of \$38,700,000, or 129 per cent on its share capital. Boston & Montana, another Amalgamated property declared dividends of \$5,300,000 or 168 per cent on its \$3,150,000 capital, making the total paid to date \$7,325,000, which is more than 15 times the capitalization. This is an excellent showing for a mine that has been worked under corporate laws for 20 years. One of the more interesting copper mines, opened within the last seven years is the Calumet & Arizona at Bisbee, Ariz. This property has an issued capitalization of \$2,000,000 upon which the dividends for 1907 amounted to \$2,300,000 or 165 per cent, making the grand total to date \$9,300,000 or 465 per cent. In the same state, the Arizona Copper company, largely controlled in Scotland, declared dividends in 1907 of \$3,800,071, making the total since organization (in 1884) \$11,142,192. The Arizona Copper company, by the way, has undoubtedly the most perplexing capitalization upon which dividends have been paid in recent years on the guaranteed basis of 7 to 10 per cent on the preferred shares with a bonus for the holders of ordinary shares. Several copper mines in Michigan, Montana, Arizona and Utah have paid

GOOD REPORTS COMING FROM PIMA'S MINES

Claim Is Made That Some of the Best Mineralized Ground In the Arizona Is Tributary To Tucson.

There is no use trying to disguise the fact that prosperity in this portion of the mining country is not going to return at a gallop, nor the further fact that mining activity for the present is going to keep but little ahead of general mining conditions. There is fully as much harm in building up unstable air castles, and then being blue and disappointed because they did not stand, as there is in being pessimistic over the matter, and probably more.

Tucson's mining future is assured. Some of the best mineralized ground in the territory of Arizona, and that means in the world, is tributary to Tucson, and its ultimate exploitation on a sane and legitimate basis is beyond question, says the Star. Copper is a valuable metal whose uses are increasing the world over, and every pound that is being taken out of the big mines means that they have just that much less to put on the market. Great mines are not made in a day nor in a year, and the development of copper properties around Tucson is going forward as rapidly as could be expected under the conditions now existing in the money and metal markets.

As has been repeatedly stated in the columns of the Star recently, work at the big Imperial mine, as well as at their smelter town of Sasco, is being pushed at a rate that has taken no heed of market conditions, because they are working under a definite plan with the money all provided for. The result there is a mine splendidly developed, with a very great amount of ore blocked out, a 400-ton smelter just put into commission, and a 300-ton concentrator mill that is well along toward completion.

At the Helvetic there is a feeling of confidence in a degree that has not been in evidence there for some time. Work is being rushed underground, and the recent strike of a wide body of a higher grade ore than they have ever worked on previously, promises well for the future. The conditions that exist at their smelter is not very well understood here.

At the Twin Butte there is at present but a small force of men at work, although a diamond drill crew is prospecting along a line that Sept. William McDermott says is proving very satisfactory, and will furnish the basis for development work along broader lines in the future.

The principal work underground at present is being done at the 300-foot level, where a drift parallel to two well known veins has been driven for a distance of 400 feet west. At 300 feet from the shaft a crosscut was run which very quickly caught and cut a copper ore body said to be 19 feet in width, and carrying very good values. A cut on the other side will soon be made to catch their second known vein. The face of their 400-foot drift is now all in ore, which Capt. McDermott reports is a heavy sulphide that carries very pleasing values.

For some time there has been considerable trouble over fuel, the company having been unable to secure a satisfactory supply of crude oil, and the wood they were forced to use not having proved satisfactory. All the diamond drill work at present is being driven from the station at the 300-foot level. The bins at the camp now hold 500 tons of ore that Capt. McDermott estimates will return about 10 per cent copper, but which he says the company has no idea of sending to a smelter while copper continues at its present low valuation.

The Richardson and Crepin group of mines in the Silver Bell district consists of twenty full claims. Several thousands of dollars have been expended in prospecting work in demonstrating the width and strike of the veins.

At one point about four hundred feet of a very strong vein has been uncovered by a trench, showing a width of from ten to fifteen feet of rich copper carbonate ore. The entire width of the ore has not been demonstrated at any point, but in places it has been opened to the width above stated. That there is a very strong vein that extends for over a mile on their property they have almost demonstrated by shafts and cuts to that distance.

All the ores so far shown are good carbonates and oxides, with some very rich copper glance running through considerable of it. If further development shows up the ore as it would seem probable for the present showing, they will have one of the big mines of that big district. It is understood that they contemplate beginning systematic and thorough development of the property in the near future. The deepest shaft on the property is sixty feet.

The Total Wreck mine, eight miles south of Pantano station, in a spur of the Santa Rita's, never looked less like its name than at the present

(Continued on Page Ten.)

COMPANIES OF BUTTE ARE IN DIFFICULTY

Small Ones Can Not Sell Their Treasury Stock, and Very Little Improvement Is Noted In the General Situation.

BUTTE, Mont., Feb. 15.—There is no improvement in the mining situation in Butte, with the exception of a resumption of work by the Davis-Daily Estates company; but even that is very limited, being for the present confined to the Colorado shaft, which has been unwaveringly preparatory to work being resumed in the crescent. It will be some weeks before the company can get into the Original crescent to continue the work there, as the Original shaft is being retimbered and consequent cannot be used by the Davis-Daily people.

The Amalgamated production is still confined to the mines of the Boston & Montana company, and its output is little more than 7,000,000 pounds of copper per month. The total output of the district last month was only 9,000,000.

The affairs of the smelter companies are not improving, and unless financial conditions become better soon it is likely that several more exploration companies will have to suspend work. They struggled bravely through the worst part of the world's financial troubles, but looking backward it is now doubtful if the policy of continuing work and exhausting the treasuries was the wise one to pursue. Several of the best of these companies have a lot of treasury stock, but they could not sell it at anything like reasonable price under present conditions.

Butte & Superior.
The Butte & Superior company, which was believed to have a handsome sum of money in its treasury and is the pockets of its backers, has decided to issue bonds to the amount of \$500,000, bearing the high rate of 1 per cent interest. A mortgage has been placed on the property of the company in Butte and the First National bank of Butte has been named as trustee.

The company owns the Blackrock group of silver claims, which it is developing in the hope of opening copper deposits. It is capitalized for \$6,000,000 and is understood to have paid \$2,500,000 for the property, and some big commissions have been "taken off" in the various deals leading to the organization of the Butte & Superior company.

An official of the company says some of the new bonds have been subscribed for in the east, and some of the money derived from their sale will be used in making final payments on the Blackrock group, upon which about \$200,000 is still due. The bond run for five years from January 1, but are payable in three years.

Butte & London.

The Butte & London Copper Development company is still prosecuting exploration work on the 1,100-foot level of its mine, and is drifting on two veins, the most promising of seven veins that have been crosscut. While some good showings averaging about 4 ounces in silver and 2.5 per cent copper have been taken from the vein, it is becoming evident that greater depth will be required to get to the commercial ore bodies which unquestionably exist in the Butte & London ground.

A mining engineer of 35 years experience, recently made an examination of the Butte & London property, and he says both the veins to the north and south of the shaft seem to be dipping toward the shaft, and in his opinion they will come together at a further depth of 200 to 500 feet, where some great copper deposits may be expected. In all his experience he says he never saw so good a showing with so little development. It is his opinion that all that is required is more depth.

H. V. Winchell, chief geologist for the Great Northern Railway and formerly with the Amalgamated Copper company, made a report on the Butte & London in which he said that he knew of four veins that traverse the Butte & London ground, but the company has found seven veins within 500 feet of the shaft. They are from 5 to 20 feet wide.

Drifting is being done on the 20-foot vein to the south and also on a 12-foot vein to the north. Both are full of quartz and talc and assay in places 2.5 per cent copper and 4 ounces in silver. The drifts are running in the direction of the North Butte property.

The president of the Venture Mining company of London has called for this country to meet the officers of the Butte & London. The Venture people have made several overtures to get control of the Butte & London, and it is considered probable that the deal will be consummated at the approaching meeting. It is, the company will receive the very handsome price for the control, which the present condition of the property warrants.

Barnes-King.

A report of the December operations on the Barnes-King, made by Supl. McGee, says something less than 4,000 tons of ore were mined and milled that month, the gross value being below \$4 per ton, which did not pay expenses. Mr. McGee is still inclined to be optimistic about the Barnes-King mine and believes some good ore will yet be found, the ore in the faces of the workings looking much better than they did some

(Continued on Page Ten.)